

# BookletChart<sup>TM</sup>

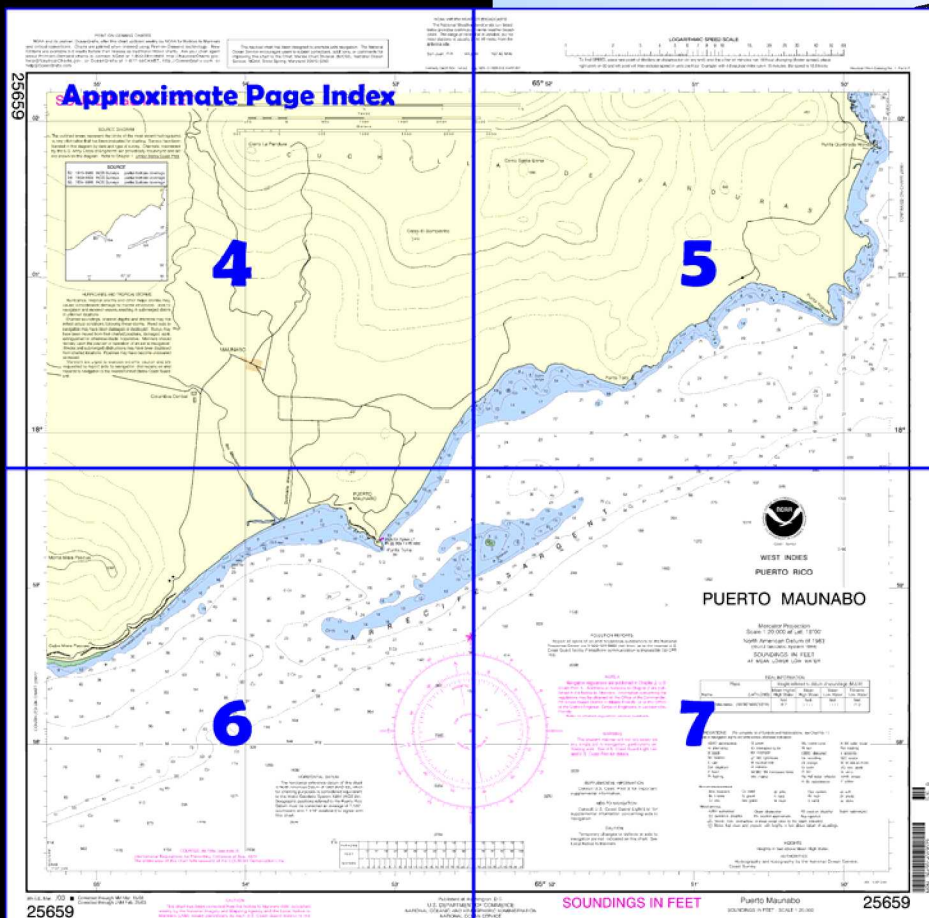
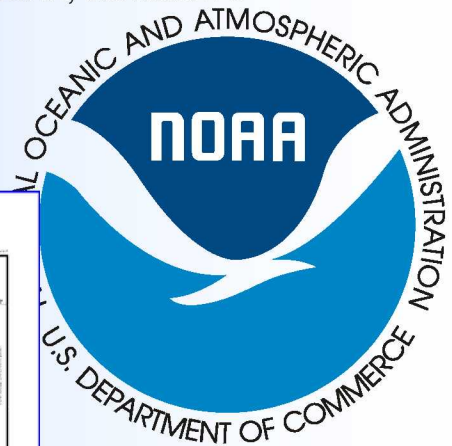
## Puerto Maunabo

(NOAA Chart 25659)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



*Home Edition (not for sale)*



well in by Punta Tuna where the reef is from 0.3 to 0.2 mile from shore. A bare part of the reef, 0.7 mile E of the light, has the appearance of a rowboat and black can buoy. Other parts of the steep-to reef have depths of 5 to 17 feet. The break on the reef does not show well except when there is considerable sea, and on parts of it the sea rarely breaks. The natural channel between the reef and the shore is not recommended for strangers.

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

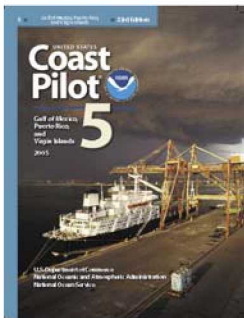
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



#### **[Coast Pilot 5, Chapter 13 excerpts]**

(464) **Punta Yeguas**, 1.2 miles S of Punta Quebrada Honda, is a low point with a rocky bluff at the end, which rises gradually in a smooth grassy ridge that joins the E end of Cuchilla de Panduras.

(465) **Punta Toro**, the point 1.4 miles WSW of Punta Yeguas, is a 500-foot-high spur of **Cuchilla de Panduras**, which has elevations of over 1,800 feet to the N.

(466) **Punta Tuna Light** (17°59'24"N., 65°53'06"W.), 111 feet above the water, is

shown from a white octagonal tower on a dwelling, near the end of the point. The point projects as a high cliff; a 400-foot hill 0.5 mile N is prominent.

(467) **Arrecife Sargent**, 0.5 mile SE of Punta Tuna is 1.8 miles long and 0.3 mile wide at its widest point. Because it breaks the force of the SE swell, the reef affords some protection from the SE for vessels anchored

# Table of Selected Chart Notes

Corrected thorough NM Mar. 15/03  
Corrected through LNM Feb. 25/03

HEIGHTS  
Heights in feet above Mean High Water.

Mercator Projection  
Scale 1:20,000 at Lat. 18°00'  
North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

SUPPLEMENTAL INFORMATION  
Consult U.S. Coast Pilot 5 for important supplemental information.

AIDS TO NAVIGATION  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

WARNING  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

HORIZONTAL DATUM  
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the Puerto Rico Datum must be corrected an average of 7.120" southward and 1.416" eastward to agree with this chart.

NOAA VHF-FM WEATHER BROADCASTS  
The National Weather Service station listed below provides continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

San Juan, P.R.      WXJ-69      162.40 MHz

Formerly C&GS 924, 1st Ed., Aug 1929 C-1929-313 KAPP 391

HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations.

Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

NOTE A  
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 7th Coast Guard District in Miami, Florida, or at the Office of the District Engineer, Corps of Engineers in Jacksonville, Florida.  
Refer to charted regulation section numbers.

AUTHORITIES  
Hydrography and topography by the National Ocean Service, Coast Survey.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

POLLUTION REPORTS  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

1734      COLREGS, 80.738a (see note A)      2838  
International Regulations for Preventing Collisions at Sea, 1972.  
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

CAUTION  
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

ABBREVIATIONS  
Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical  
Al alternating  
B black  
Bn beacon  
C can  
DIA diaphone  
F fixed  
Fl flashing

G green  
IQ interrupted quick  
Iso isophase  
LT HO lighthouse  
M nautical mile  
m minutes  
MICRO TR microwave tower  
Mkr marker

Mo morse code  
N nun  
OBSC obscured  
Oc occulting  
Or orange  
Q quick  
R red  
Ra Ref radar reflector  
R Bn radiobeacon

R TR radio tower  
Rot rotating  
s seconds  
SEC sector  
St M statute miles  
VQ very quick  
W white  
WHIS whistle  
Y yellow

Bottom characteristics:

Blbs boulders  
bk broken  
Cy clay

Co coral  
G gravel  
Grs grass

gy gray  
h hard  
M mud

Oys oysters  
Rk rock  
S sand

so soft  
Sh shells  
sy sticky

Miscellaneous:

AUTH authorized  
ED existence doubtful

Obstr obstruction  
PA position approximate

PD position doubtful  
Rep reported

Subm submerged

(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.  
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

TIDAL INFORMATION				
Place  Name (LAT/LONG)	Height referred to datum of soundings (MLLW)			
	Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
Puerto Maunabo (18°00'N/65°53'W)	feet 0.7	feet -0.1	feet -0.5	feet -1.0

(203)

PRINT-ON-DEMAND CHARTS  
NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

# PRINT-ON-DEMAND CHARTS

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This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-5262.

NOAA VHF-FM WEATHER BROADCAST  
The National Weather Service station below provides continuous marine weather forecasts. The range of reception is variable; most stations is usually 20 to 40 miles in antenna site.

San Juan, P.R. WXJ-69 162.7

Formerly C&GS 924, 1st Ed., Aug 1929 C-1929-

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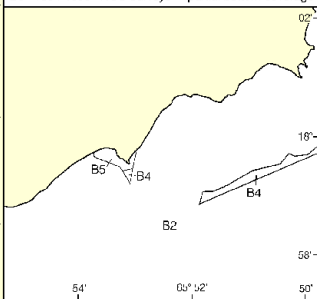
## SOUNDINGS IN FEET

### SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

### SOURCE

B2	1970-1989	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	1834-1899	NOS Surveys	partial bottom coverage



### HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations.

Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wracks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

MAUNABO

Columbia Central

Rio Maunabo

Quebrada Arenas

PUERTO MAUNABO

PUNTA TUNA LT  
Fl (2) 30s 111ft 16M

Punta Tuna

Joins page 6

Printed at reduced scale.

SCALE 1:20,000  
Nautical Miles

See Note on page 5.



4

North

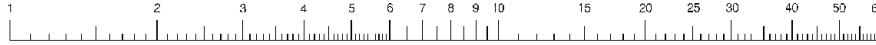


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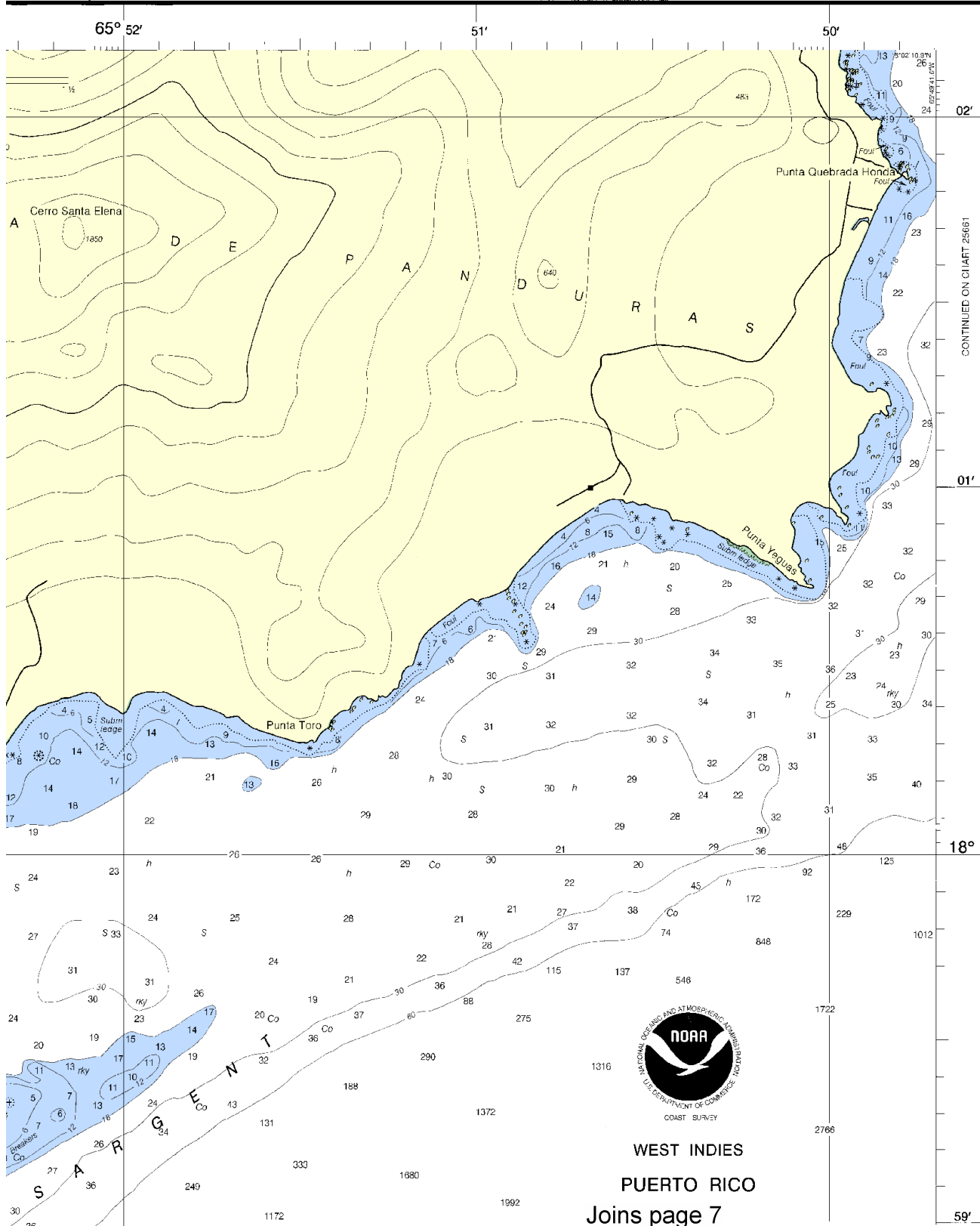
29-313 KAPP 391

# LOGARITHMIC SPEED SCALE



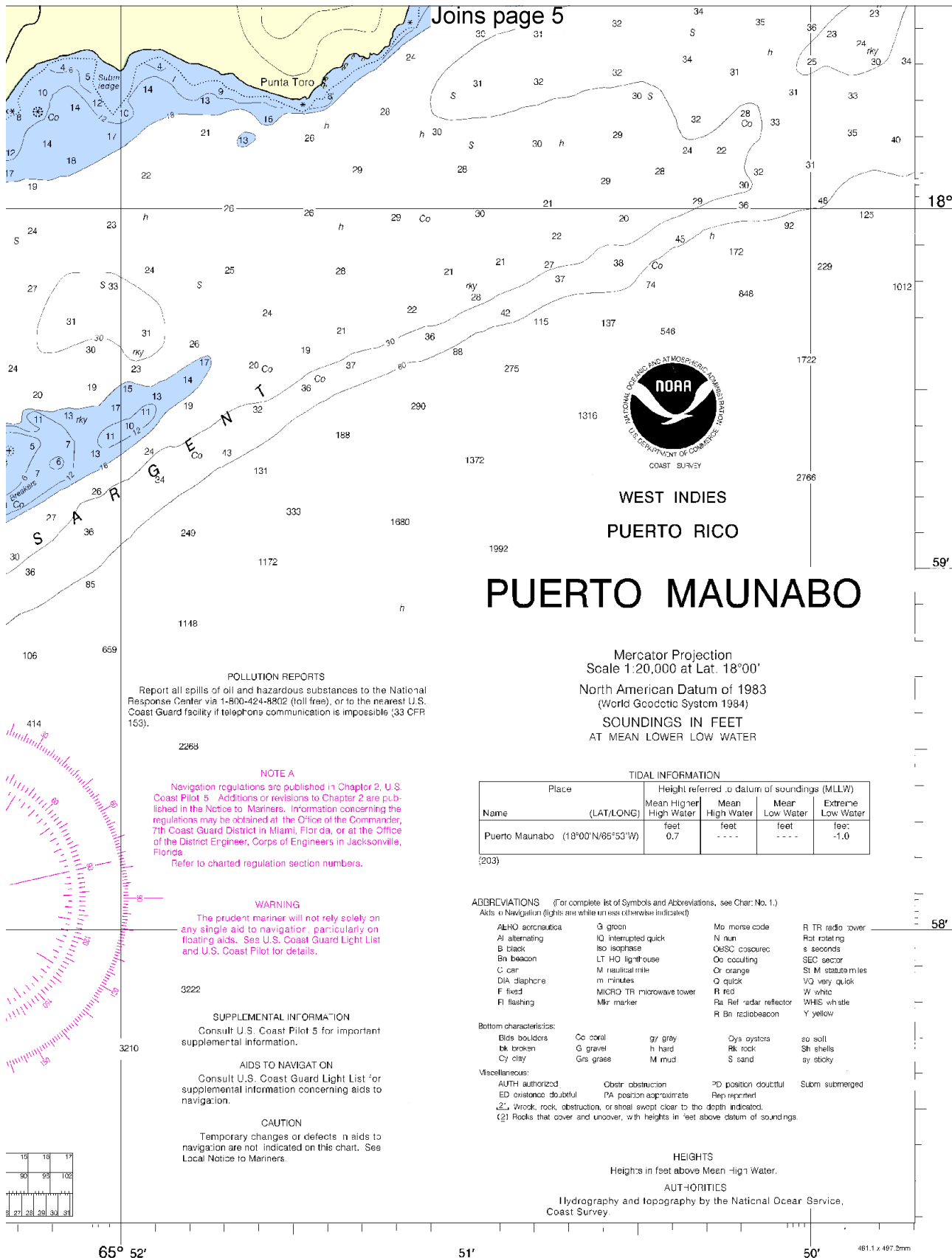
To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

Nautical Chart Catalog No. 1, Panel F



This BookletChart was reduced to 70% of the original chart scale.  
 The new scale is 1:28571. Barscales have also been reduced and  
 are accurate when used to measure distances in this BookletChart.





**POLLUTION REPORTS**  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

**NOTE A**

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 7th Coast Guard District in Miami, Florida, or at the Office of the District Engineer, Corps of Engineers in Jacksonville, Florida.  
Refer to charted regulation section numbers.

**WARNING**

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

**SUPPLEMENTAL INFORMATION**  
Consult U.S. Coast Pilot 5 for important supplemental information.

**AIDS TO NAVIGATION**  
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

Mercator Projection  
Scale 1:20,000 at Lat. 18°00'  
North American Datum of 1983  
(World Geodetic System 1984)  
**SOUNDINGS IN FEET**  
AT MEAN LOWER LOW WATER

**TIDAL INFORMATION**

Name	Place (LAT/LONG)	Height referred to datum of soundings (MLLW)			
		Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
Puerto Maunabo	(18°00'N/65°53'W)	feet 0.7	feet ---	feet ---	feet -1.0

(203)

**ABBREVIATIONS** (For complete list of Symbols and Abbreviations, see Chart No. 1.)  
Aids to Navigation (lights are white unless otherwise indicated)

ALHO aeronautica	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rat rotating
B black	ISO isophase	ObSC obscures	s seconds
Bn beacon	LT HO light-house	Co counting	SEC sector
C car	M nautical mile	Or orange	St M statute miles
DIA diaphane	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

**Bottom characteristics:**

Bds boulders	Co coral	gr gray	Oys oysters	so soil
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	st sticky

**Miscellaneous:**

AUTH authorized	Obstr obstruction	PD position doubtful	Subm submerged
ED distance doubtful	PA position approximate	Rep reported	
W rock, rock, obstruction, or shoal swept clear to the depth indicated.			
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.			

**HEIGHTS**

Heights in feet above Mean High Water.

**AUTHORITIES**

Hydrography and topography by the National Ocean Service, Coast Survey.

**SOUNDINGS IN FEET**

Puerto Maunabo

SOUNDINGS IN FEET - SCALE 1:20,000

**25659**

D.C.  
IMERCE  
> ADMINISTRATION  
ICE

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,  
NGA Weekly Notice to Mariners: 0910 2/27/2010,  
Canadian Coast Guard Notice to Mariners: n/a .

**7**

## EMERGENCY INFORMATION

### VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16 – Emergency, distress and safety calls** to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 & 78A** – Recreational boat channels.

### Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS !!**

**Mobile Phones** – Call 911 for water rescue.

**Coast Guard Puerto Rico** – (787) 289-2041

**NOAA Weather Radio** – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

**Getting and Giving Help** – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



## NOAA CHARTING PUBLICATIONS

**Official NOAA Nautical Charts** – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Print-on-Demand Nautical Charts** – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at [www.OceanGrafix.com](http://www.OceanGrafix.com).

**Official Electronic Navigational Charts (NOAA ENC<sup>®</sup>)** – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Raster Navigational Charts (NOAA RNC<sup>™</sup>)** – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official BookletCharts<sup>™</sup>** – BookletCharts<sup>™</sup> are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is [www.NauticalCharts.gov/bookletcharts](http://www.NauticalCharts.gov/bookletcharts).

**Official PocketCharts<sup>™</sup>** – PocketCharts<sup>™</sup> are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

**Official U.S. Coast Pilot<sup>®</sup>** – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official On-Line Chart Viewer** – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is [www.NauticalCharts.gov/viewer](http://www.NauticalCharts.gov/viewer).

**Official Nautical Chart Catalogs** – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

**Internet Sites:** [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov), [www.NOAA.gov](http://www.NOAA.gov), [www.TidesandCurrents.NOAA.gov](http://www.TidesandCurrents.NOAA.gov), [www.NOS.NOAA.gov](http://www.NOS.NOAA.gov).